



Hydropower solutions for developing and emerging countries

## D6.6

# Final report on attended national and international events



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## 1 Introduction

HYPOSO is a multi-approach project to tackle several objectives: identification and mapping of the European hydropower industry, hydropower stakeholders in the HYPOSO target countries, education of new hydropower experts through capacity building activities and bringing together relevant actors from the EU hydropower sector with stakeholders in the target countries. Interaction with stakeholders is therefore an integral part of the activities, as workshops, capacity building activities and interviews with national/local stakeholders are envisaged in all target countries which are outside the European Union, namely workshops in Bolivia, Colombia, and Ecuador in Latin America, and in Cameroon and Uganda in Africa. Additionally, capacity building courses will be carried out in Bolivia and Ecuador, and in Cameroon and Uganda.

## 2 Information about Deliverable

This deliverable provides the information on national and international events attended by experts of the HYPOSO project consortium within the project duration (September 2019-May 2023).

## 3 Objectives

WP6 is dedicated to bringing together European hydropower industry representatives with local stakeholders and the aim of this work package is to accelerate the market uptake of EU hydropower technologies in the target countries. One of the tools to achieve this objective was Task 6.3 - Promotion of project/initiative at relevant national and international events. Throughout the HYPOSO project all experts of the consortium were to attend national and international events (self-organized or as participating delegates) to disseminate project results and to promote European hydropower products and services. Sessions on HYPOSO related activities were also to be included in small hydropower workshops, events, and conferences, both in Europe and in the target countries.

## 4 Methodology

The list of national and international events (see: Figure 12) was distributed to all project partners by TRMEW at the beginning of the project duration together with the tool to monitor partners' activities ("Events monitoring" excel file – see Figure 11). The list of events was currently complemented and available in the HYPOSO intranet. Partners were asked to attend relevant events and fill in the file on an ongoing basis as well as to collect ppt presentations, abstracts, pictures and upload them at HYPOSO intranet. Partners were informed that at the events which are most important from the HYPOSO project perspective (like HYDRO, HYDRO Africa, or Small Hydro Latin America) sessions or workshops would be organized and coordinated by TRMEW to engage more project partners and obtain better results. The Events

monitoring files and attachments were collected three times; for the Periodic Technical Report in April 2021, for the D6.1 in July 2021 and for the D6.6 in May 2023. All proofs of experts' participation indicated in Annex 6.3 (ppt presentations, abstracts, pictures, conference papers) are available at the HYPOSO project intranet.

## 5 Overview of activities promoting project/initiative at relevant national and international events

### 5.1 General overview

Although the COVID-19 pandemic limited the possibilities of organising and participating in gatherings during the first 3 years of the project duration, the project partners managed to participate in 79 events both national and international, self-organized or as participating delegates. Some of the events were live and some of them were organized as online events because of the pandemic limitations.

Experts of the HYPOSO project promoted the HYPOSO project and the initiative at the following events:

- 1) HYDROFORUM 2019 (9-10 October 2019)
- 2) HYDRO 2019 (14-16 October 2019)
- 3) Small Hydro Latin America (27-28 November 2019)
- 4) RENEXPO INTERHYDRO 2019 (28-29 November 2019)
- 5) 4th European Hydropower Association meeting (28 November 2019)
- 6) HYDROFORUM TRMEW (28-29 November 2019)
- 7) FISE (4-6 December 2019)
- 8) EREF SHP workshop (20 January 2020)
- 9) EU Hydropower Network meeting (20 January 2020)
- 10) FIThydro Workshop (28-29 January 2020)
- 11) EREF SHP workshop (9 February 2020)
- 12) HPE project meeting (16 April 2020)
- 13) EU Hydropower Network meeting (17 June 2020)
- 14) EREF SHP workshop (4 September 2020)
- 15) Small hydropower development - From planning to design (14-26 September 2020)
- 16) Project Developers Workshop Cameroon (21 September 2020)
- 17) Project Developers Workshop Uganda (23 September 2020)
- 18) EU Hydropower Network meeting (22 October 2020)
- 19) HYDRO 2020 - Strategies for future progress (26-28 October 2020)
- 20) EU SHP webinar (10 November 2020)
- 21) EREF SHP Workshop (11 November 2020)
- 22) INEA Workshop (11 November 2020)
- 23) Digital African Utility Week (24-26 November 2020)

- 24) Online Forum on Sustainable Development and Capacity Building (25-26 November 2020)
- 25) GIS DAY (30 November 2020)
- 26) International Conference on Fishfriendly Hydropower (17 March 2021)
- 27) Project Developers Workshop Ecuador (27 April 2021)
- 28) Relevant issues of environment management 2021 (13 May 2021)
- 29) RES Simplify workshop (H2020 project) (18 May 2021)
- 30) I Virtual Conference on Energy Sustainability (24-28 May)
- 31) Webinar organised by Hydraulics lab at Universidad Mayor de San Simón (UMSS) (16 June 2020)
- 32) Meetingpoint.energy conference (22 June 2021)
- 33) Small Hydro Latin America 2021 (23-24 June 2021)
- 34) Hydropower Europe Forum Sustainability Meeting (26 August 2021)
- 35) Hydropower Europe monthly project updates (2nd Monday each month)
- 36) Small hydropower development - From planning to design (4-15 September 2021)
- 37) EREF SHP policy chat (14 September 2021)
- 38) REN21 comms strategy meeting (14 September 2021)
- 39) EREF SHP policy planning meeting (17 September 2021)
- 40) RENPOWER East Africa Investors 2021 (22 September 2021)
- 41) HYDRO ES (23 September 2021)
- 42) Strategieworkshop Swiss Small Hydro (6 October 2021)
- 43) 24. Internationales Anwenderforum Kleinwasserkraftwerke (7-8 October 2021)
- 44) HYDROFORUM 2021 (13 October 2021)
- 45) Virtual conference on Small hydroelectric plants (22 October 2021)
- 46) KONGRES ENERGETYKA WODNA (24 October 2021)
- 47) Interview - Youth & SHP Chapter for WSHPDR 2022 (12 November 2021)
- 48) Hydropower Europe project meeting (22 November 2021)
- 49) EU Hydropower Network meeting (16 December 2021)
- 50) EREF SHP policy planning meeting (26 January 2021)
- 51) Workshop on Small Hydropower Framework Conditions in Cameroon (28 January 2022)
- 52) Renexpo Interhydro 2022 (3 March 2022)
- 53) Virtual Capacitation on Management and Promotion of Energy Efficiency Projects (18 March 2022)
- 54) H2020 MERLIN Hydro power Round Table (21 April 2022)
- 55) HYDRO 2022 - Roles of hydro in the global recovery (25-27 April 2022)
- 56) EREF General Assembly (9 May 2022)
- 57) EAF member meeting (12 May 2022)
- 58) ICOLD Congress (28 May-3 June 2022)
- 59) EREF SHP policy planning meeting (17 June 2022)
- 60) German African Energy Forum 2022 (1-2 June 2022)
- 61) HIC 2022: 14th International Conference on Hydroinformatics (4-8 July 2022)

- 62) EU Hydropower Network meeting (12 July 2022)
- 63) Workshop on Small Hydropower Framework Conditions in Bolivia (22 July 2022)
- 64) Workshop on Small Hydropower Framework Conditions in Ecuador (26 July 2022)
- 65) VI Seminario de Centrales Hidroeléctricas (3-5 August 2022)
- 66) Small hydropower development - From planning to design (19-30 September 2022)
- 67) EU Hydropower Network meeting (12 October 2022)
- 68) International Conference on Hydropower Investment in Developing Countries (13-14 October 2022)
- 69) INTERNATIONAL CONGRESS ON SUSTAINABLE DEVELOPMENT IN THE HUMAN ENVIRONMENT - CURRENT & FUTURE CHALLENGES ICSDEV 2022 (19-22 October 2022)
- 70) HYDROFORUM 2022 (26 October 2022)
- 71) EuCOLD Workshop (3-4 November 2022)
- 72) ETIP Hydropower project meeting (22 November 2022)
- 73) HYDROFORUM TRMEW 2022 (9-10 December 2022)
- 74) EREF SHP policy planning meeting (7 February 2023)
- 75) Worksop on Small Hydropower Framework Conditions in Colombia (28 February 2023)
- 76) Worksop on Small Hydropower Framework Conditions in Uganda (15 March 2023)
- 77) RENEXPO INTERHYDRO 2023 (30-31 March 2023)
- 78) ETIP Hydropower project meeting (26 April 2023)
- 79) HYPOSO Final Event (12 May 2023)

The detailed list of the events and the promotion activities performed by each partner at the events constitutes Annex 6.3 of this report.

## 5.2 Most relevant events

Among the events listed above, some were of the particular relevance from the HYPOSO project perspective. Their description is set out in the following paragraphs.

### 5.2.1 HYDRO 2020

On 27 October 2020 a special session on HYPOSO project was organized within this conference. The HYPOSO session gathered 83 participants and nearly all partners were involved in the organisation of the session and/or in presenting the HYPOSO project and its first findings. The session was co-chaired by project experts, Professor Bernhard Pelikan (SF) and Professor Veronica Minaya (EPN). At the session project experts presented the overview of the HYPOSO project, the overviews of the small hydropower framework conditions in the target countries, the process of the selection of high potential sites, the scope of the planned capacity building courses and the opportunities of promoting the European small hydropower industry in the target countries. After the presentations the Q&A session took place.



A screenshot of chairpersons and speakers in the HYPOSO session at HYDRO 2020 as well as an outline and programme of the session published at HYDRO 2020 conference materials are shown in Figure 1 and Figure 2.

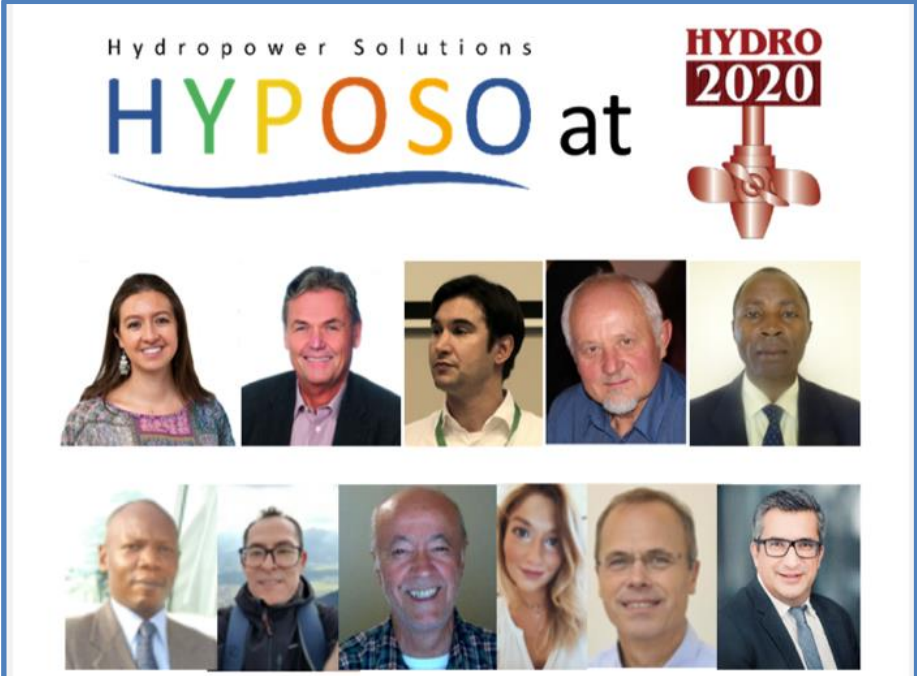


Figure 1: Screenshot of chairpersons and speakers in the HYPOSO session at HYDRO 2020

## **Session 14: Hydropower solutions for developing and emerging countries - HYPOSO**

**Co-chairs: Prof Bernhard Pelikan, University of Natural Resources and Life Sciences, Austria; and, Prof Veronica Minaya Maldonado, Facultad de Ingenieria Civil y Ambiental, Ecuador (to be confirmed)**

The HYPOSO research project, funded under the H2020 programme, is a multi-approach project to tackle several objectives: identification and mapping of the European hydropower industry and hydropower stakeholders in the HYPOSO target countries; education of new hydropower experts through capacity building activities; and, bringing together relevant actors from the EU hydropower sector with stakeholders in the target countries, with the aim to develop and improve small hydropower standards in the target countries. Interaction with stakeholders is an integral part of the activities; workshops, capacity building activities and interviews with national/local stakeholders are envisaged in all target countries which are outside the European Union, namely workshops in Bolivia, Colombia and Ecuador in Latin America, and in Cameroon and Uganda in Africa. In addition, capacity building courses are to be carried out in Bolivia and Ecuador, and in Cameroon and Uganda. The project will also develop a map of hydropower potential, with possible hydropower sites of each target country. In cooperation with local experts and political stakeholders, an elaboration of 15 dedicated business cases will be used for development of the SHP projects (three in each of the five target countries), with a focus on local financing, leading to at least five signed MoUs between stakeholders from target countries and the European hydropower sector.

- Introduction about HYPOSO - objectives and aims
- Short presentations of five target countries - small hydropower situation and needs
- Mapping of the European small hydropower industry (handbook on European technologies) and list of European stakeholders
- Hydropower potential map of the target countries
- Capacity building and needs of target countries
- Development of small hydropower plant and financing models

*Figure 2: Screenshot Outline and programme of the HYPOSO session at HYDRO 2020*

### 5.2.2 HYDRO 2022

After several postponements of the next HYDRO event, which had been initially scheduled in 2021, it finally took place live on 25-27 April 2022 in Strasbourg, France. The HYPOSO session, extended to the whole afternoon, was incorporated in the programme on 26 April and gathered more than 80 participants. The session was co-chaired by the HYPOSO project experts, Professor Bernhard Pelikan (FN) and Ewa Malicka (TRMEW).

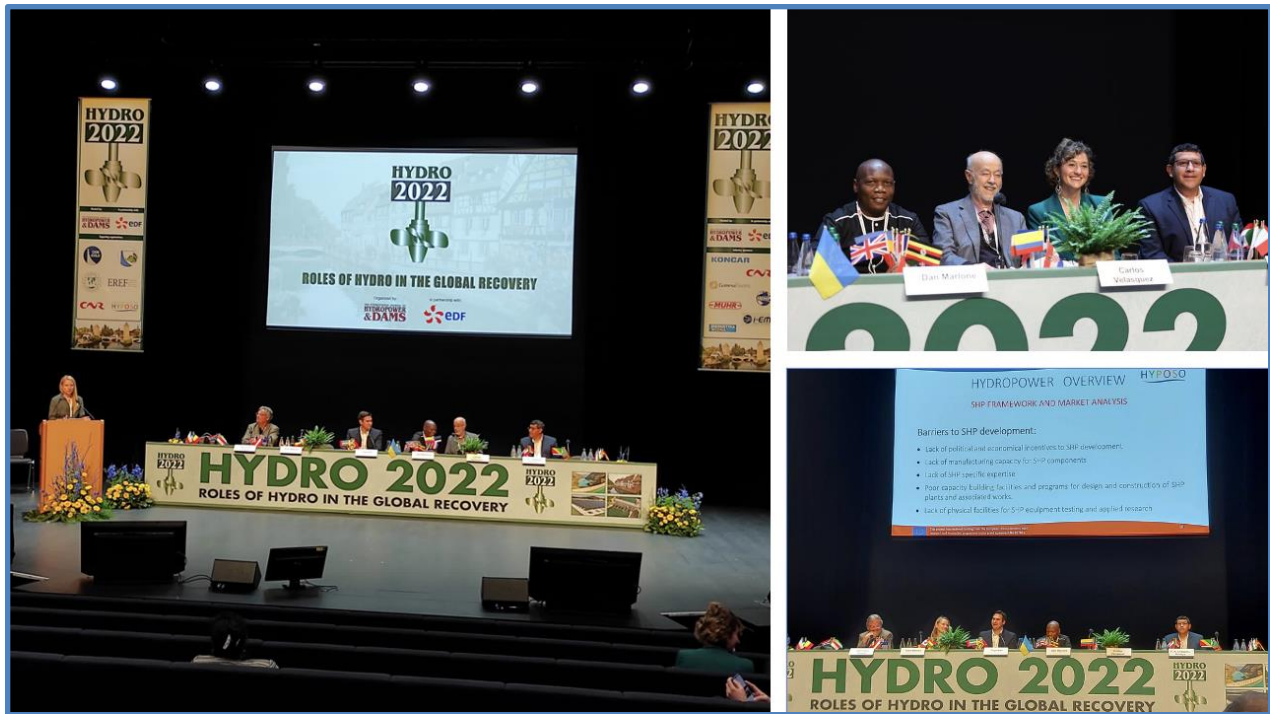


Figure 3: The HYPOSO session at HYDRO 2022

A significant part of the session was dedicated to presentations originating from the partner countries, focussing on the small hydropower potential and the development opportunities as well as barriers obstructing the further development. In some of the country's presentations very recent topics like hybridisation of different renewables and the high value of pumped storage balancing the high volatility of PV and wind energy were addressed. Particularly in Africa, it was underlined that the development of small hydro would combat against poverty, was sustaining the climate change target and would create local jobs while ensuring electricity access.

Highly interesting was the presentation on the HYPOSO Map, aiming at the identification of potential small hydro sites in the partner countries. It was underlined that this map would not replace the individual analysis of the site but provide an excellent tool for preselection of regions and rivers.

The elaboration of the pre-feasibility studies was found to be the most man-power consuming target within HYPOSO, requiring the visit and analysis of the selected sites. It was reported that these visits had been already carried out in Africa and they had provided a deep insight into the enormous potential, the living conditions of the population and the urgent needs in terms of infrastructure. The local population was found strongly supporting the development of SHP, recognising the advantages.

Very impressive was the report on the capacity building activities already carried out in Uganda and Cameroon. The participants showed extreme interest, enthusiasm and willingness to

gather as much information as possible. Within the courses a strong partnership between participants and lecturers could be developed lasting for longer than only the course period and providing a solid basis for further cooperation. Capacity and knowledge were found crucial for the development of a sustainable energy future.

Finally, a special emphasis was placed on the HYPOSO Platform, serving as a facilitator between the target countries and the European small hydropower industry.

The presentations and the discussion led to a conclusion that specific uncertainty arises while planning investments in African or Latin American countries. The problem of finding reliable and professional partners was often raised. Within HYPOSO project these reliable local partners had already been found. Nevertheless, the need to enlarge the number of experienced hydropower experts in the regions remained an important issue. Of course, the investment in the target countries may contain some additional risk and needs serious risk assessment. On the other hand, the potential available guarantees for economically highly valuable projects unlikely to be found in Europe today. However, the SHP-development in the future must be based on partnership on eye-level and on the conditions of sustainability. The local population must get identified with the plants safeguarding existence and functionality.

The HYPOSO consortium used the HYDRO event as well to inform stakeholders from the hydro sector which were present at the exhibition about the possibility to register their companies at the HYPOSO Platform to be visible for future business between Europe, Africa, and Latin America.

The photos of the HYPOSO session at HYDRO 2022 as well as the detailed programme of the session published at HYDRO 2022 conference materials are shown in Figure 3 and Figure 4.

<b>Session 17</b>	<b>HYPOSO – Supporting hydro in Africa and Latin America</b> <i>Room Cassin (14.00 hrs – 15.30 hrs)</i>
<b>Co-Chairs:</b>	<b>Prof Bernhard Pelikan, University of Natural Resources and Life Sciences, Austria; and, Ewa Malicka, President, Polish Association for Small Hydropower Development (TRMEW), Poland</b>
<b>Part One</b>	
14.05:	Hydropower solutions for developing and emerging countries: Updates from the HYPOSO project - <i>I. Ball and D. Rutz, WIP Renewable Energies, Germany</i>
14.17:	Exploring Uganda's small hydro development - <i>D. Malone Nabutsabi, Hydropower Association of Uganda Ltd (HPAU), Uganda</i>
14.29:	Ongoing evolution of small hydropower and framework conditions in Cameroon - <i>J. Kenfack, Solarhydropower (SHW) Cameroon; U. Nzotcha, Africa Group Co PLC, Cameroon; V. Nkue, Ministry of Energy and Water, Cameroon</i>
14.41:	Hydropower potential and development opportunities in Colombia - <i>C. Velasquez, CELAPEH, Colombia</i>
14.53:	Framework conditions of SHP development in Ecuador - <i>V. Minaya Maldonado, Escuela Politecnica Nacional (EPN), Ecuador</i>
15.05:	Framework conditions for SHP development in Bolivia - <i>V.A. Gonzales Amaya and F.A. Ledezma Perizza, Universidad Mayor de San Simon, Bolivia</i>
15.17:	Discussion
15.30:	Coffee
<b>Session 17 contd.</b>	<b>(16.00 hrs – 17.30 hrs)</b>
<b>Part Two</b>	
16.05:	Hydropower potential sites determination and benefits of small hydropower systems using irrigation infrastructure applied to national electrification within HYPOSO - <i>F.A. Ledezma Perizza and G. Amaya, Universidad Mayor de San Simón, Bolivia</i>
16.20:	The HYPOSO map: Identification of potential small hydropower sites in Africa and Latin America - <i>P. Panyas A. Dumbravskas, G. Vyčienė and L. Jurevičius, Vytautas Magnus University, Lithuania; A. Balčiūnas, Vilnius University, (VMU), Lithuania</i>
16.35:	Pilot projects: Justification for selection, challenges and next steps - <i>B. Baratti, N. Frosio and L.L. Papetti, Frosio Next S.r.l., Italy Frosio Next S.r.l. Italy; B. Pelikan Austria</i>
16.50:	Knowledge and capacity development in the hydropower sector: Course organization and implementation - <i>M. Marence, IHE Delft, The Netherlands; D. Marlon, Hydro Power Association of Uganda Ltd; J. Kenfack, University of Yaounde I and Solar Hydropower Ltd, Cameroon</i>
17.05:	Showcasing and promoting the European small hydropower industry - <i>T. Jansald and D. Hendricks, European Renewable Energies Federation (EREF), Belgium</i>
17.20:	Discussion
17.30:	Close of session

Figure 4: Programme of the HYPOSO session at HYDRO 2022

### 5.2.3 VI Seminario de Centrales Hidroeléctricas

From 3 to 5 August 2022, the renowned Colombian society SAI (Sociedad Antioqueña de Ingenieros y Arquitectos - Antioqueña Society of Engineers and Architects, based in Medellín, the capital of Department Antioquia), organized the VI Seminario de Centrales Hidroeléctricas (Seminar on Hydroelectric Plants). The aim of this event was to present different points of view so that the decisions of the electricity sector would be taken correctly and would allow to build the necessary energy security and independence that Colombia needs in its future. The event attracted more than 400 participants (on site and virtual), and was accompanied by a little exhibition, where the participants met during the breaks to network, and continue the discussions from the sessions. The HYPOSO project had the possibility to be presented, thanks to the Colombian project partner CELAPEH. On 4 August 2022, in a morning session, four presentations were given to inform the participants about the HYPOSO project.



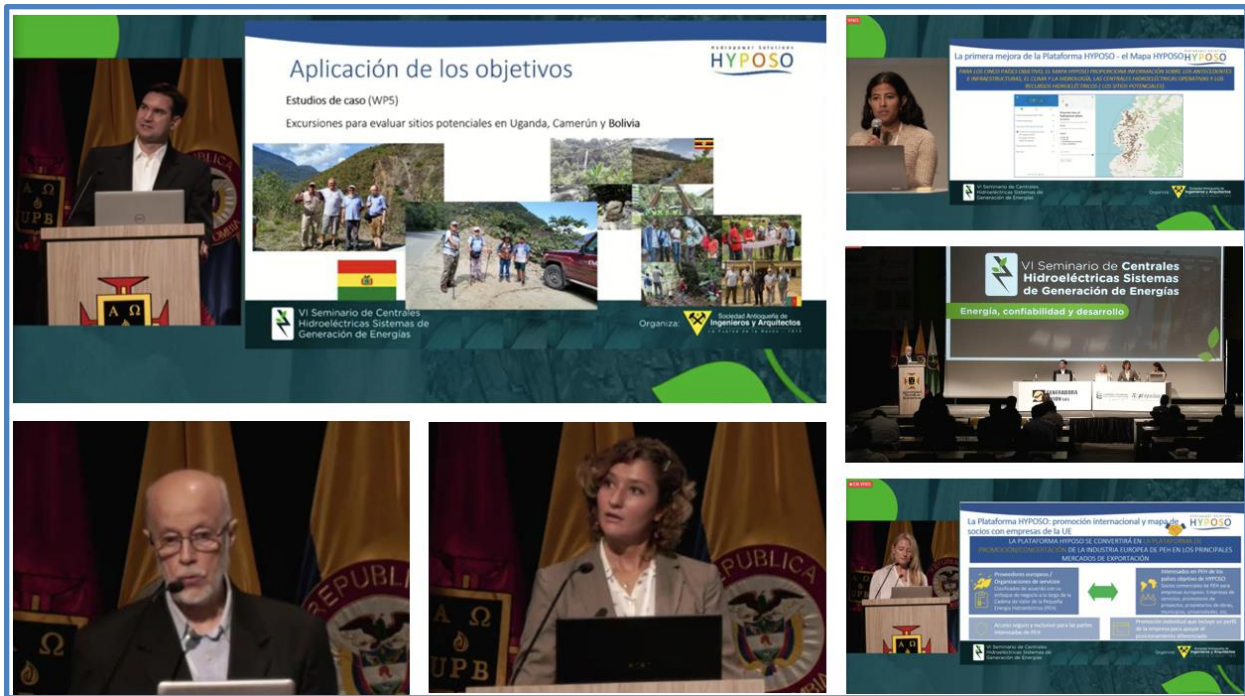


Figure 5: HYPOSO session at VI Seminario de Centrales Hidroeléctricas

After welcoming words of Carlos Velasquez (CELAPEH), HYPOSO Coordinator Ingo Ball (WIP) gave an overview about the project and the status quo of its activities. Then, Ewa Malicka (TRMEW) spoke about how to bring together Colombian and European small hydropower stakeholders. She presented therefore the tools provided in the HYPOSO project, the HYPOSO Platform, the Workshops on Small Hydropower Framework Conditions, and the Business cooperation study tour for African and Latin American stakeholders, which was planned at the end of the HYPOSO project. She was supported by Laura Velasquez (CELAPEH) who translated the talk into Spanish. Following, Beatrice Baratti, gave insights how the 15 business cases within HYPOSO had been selected, and which steps were being considered during the study development, as well as in the assessment of the environmental and socioeconomic impact of the studied projects. She mentioned concluding that the economic viability and different opportunities to finance these projects were evaluated based on the findings of the pre-feasibility studies. Finishing, Carlos Velasquez gave a presentation how CELAPEH was contributing to the HYPOSO project in Colombia, explaining the different tasks that are being worked on. He finished his talk to inform the participants about CELAPEH's mission, ending with a call to create a dedicated Colombian Association of Actors and Producers of small hydropower.

After the presentations, the HYPOSO experts provided additional information to participants in a short Q&A session.

The photos of the HYPOSO session at HYDRO 2022 as well as the detailed programme of the session are shown in Figure 5 and Figure 6.



## VI Seminario de Centrales Hidroeléctricas Sistemas de Generación de Energías

Energía - confiabilidad y desarrollo

**Jueves 4 de Agosto**  
Jornada completa

Horario	Conferencia
<b>Descanso</b>	
8:00 - 9:00	  <p><b>HYPOSO, aporte de la Unión Europea a la Transición Energética en Colombia</b> Ingo Ball - Coordinador General Proyecto HYPOSO Ewa Malicka - Presidenta de la Asociación de Pequeñas Hidroeléctricas de Polonia - Beatrice Baratti -Ingeniera Hidráulica de la Universidad Politécnica de Milán  Carlos Velásquez - Director General de CELAPEH</p>
9:00 - 9:40	 <p><b>Soluciones integrales SIKA para el desarrollo de proyectos hidroeléctricos</b> Juan Esteban Salazar - Asesor Técnico Comercial Infraestructura</p>
9:45 - 10:25	 <p><b>Transición energética, retos y oportunidades de flexibilidad en operación y en almacenamiento de energía en pequeñas centrales hidroeléctricas</b> Manuel Antonio Correa Sossa -Líder técnico energía, director proyectos estratégicos e Innovación en Integral S.A.</p>
<b>Descanso</b>	
10:25 - 10:55	
11:00 - 11:40	 <p><b>Matriz de energía óptima para Colombia</b> Jaime Millán Ángel - Experto en energía y evaluación de proyectos</p>
11:45 - 12:25	 <p><b>Pequeñas y grandes plantas hidroeléctricas y su aporte a la seguridad, independencia energética y descarbonización del país.</b> Jorge Alberto Valencia Marín - Director General CREG</p>
12:30 - 1:10	 <p><b>Situación de la transición energética hoy en el mundo y su impacto en Colombia.</b> Carmenza Chahín Álvarez - Consultora Independiente en Regulación Económica de Infraestructura</p>
<b>Almuerzo</b>	
13:10 - 14:40	
14:45 - 15:25	  <p><b>Envejecimiento de las Centrales Hidroeléctricas y las posibilidades de Modernización en Colombia</b> Carlos Sgro Dorado - Gerente Andritz Colombia Edwin Sierra - Líder de Ventas y Marketing SR</p>
15:30 - 16:10	 <p><b>La importancia de las Hidroeléctricas para las Energías Renovables No Convencionales</b> -Wilhen Salazar Ochoa Ingeniero Especialista Unidad de Negocios de Generación HMV</p>
<b>Descanso</b>	
16:10 - 16:40	
16:45 - 17:25	  <p><b>Advantages digitalization and new technologies (EVO)</b> Georgios Vavaroutsos Pérez - Gerente General Global Hydro Daniela Londoño Mesa - Gerente de Proyectos Global Hydro</p>
17:30 - 19:30	<b>Coctel y espacio de relacionamiento</b>

**Organiza:**



Sociedad Antioqueña de Ingenieros y Arquitectos  
ESTABLECIDA EN 1913

**Patrocina:**



Proyectos de ingeniería especializada S.A.S.

Figure 6: Programme of the HYPOSO session at VI Seminario de Centrales Hidroeléctricas

### 5.2.4 HYPOSO Final Event

In the last month of the HYPOSO project duration, a HYPOSO Final Event titled “Hydropower solutions for developing and emerging countries – Bringing Africa, Latin America and Europe together” was organised on 12 May 2023 at IHE Delft, to present the HYPOSO project results

and discuss the needs for the future of small hydropower in Europe, in the HYPOSO target countries, and in the world. It brought together relevant stakeholders from the target countries (political and industrial) and representatives of the European hydropower industry and other stakeholders. It was an opportunity not only to learn about the HYPOSO project results, but also to use the chance of having an international delegation at the venue, stakeholders from the national hydropower sectors from the HYPOSO target countries in Africa and in Latin America, who arrived in Delft after a Study Tour through some European countries.



*Figure 7: HYPOSO Final Event*

In the morning, B2B talks were organised and interested European stakeholders had small stands where they presented themselves in a little exhibition to the international partners. In parallel, the HYPOSO Advisory Board met in the premises of IHE Delft. This first coming together was continued in the afternoon with the Final Conference (for the programme see figure 8) and concluded with a Gala Dinner in the evening.

The photos of the HYPOSO Final Event as well as the detailed programme of the HYPOSO Final Event are shown in Figure 7 and Figure 8.



 	
<b>Agenda</b>	
<b>Time</b>	<b>Topic and speaker</b>
08:00 – 09:00	<b>Reception &amp; Welcome coffee</b>
09:00 – 12:00	<b>B2B talks &amp; matchmaking (on demand)</b>
09:00 – 14:00	<b>Mini exhibition of European hydro companies</b>
10:00 – 10:15	<b>Official Welcome</b> Eddy Moors, Rector IHE Delft, Netherlands
10:15 – 12:00	<b>HYPOSO Advisory Board Meeting</b> [internal event]
12:15 – 13:45	<b>Lunch break (at IHE cafeteria)</b>
	<b>FINAL CONFERENCE</b>
14:00 – 14:25	<b>Welcome and introduction</b> Miroslav Marenc, IHE Delft, Netherlands <b>About the HYPOSO Project</b> Ingo Ball, WIP, Germany
14:25 – 14:45	<b>Key note speech: tba</b>
14:45 – 15:00	<b>European efforts to support the hydropower sector</b> Dirk Hendricks, EREF, Belgium
15:00 – 15:20	<b>The HYPOSO Map – a useful tool for academia and the industry</b> Petras Punys, VDU, Lithuania
15:20 – 15:40	<b>Capacity building – working today on the experts for tomorrow</b> Miroslav Marenc, IHE Delft, Netherlands
15:40 – 16:00	<b>15 potential hydropower sites in five countries – possibilities for corporations</b> Bernhard Pelikan, Frosio Next, Italy
16:00 – 16:20	<b>Framework conditions for small hydropower – experiences from three continents</b> Ewa Malicka, TRMEW, Poland
17:15 – 17:45	<b>Panel discussion: The role of (small) hydropower in a changing energy system</b> Moderation: Dirk Hendricks, EREF, Belgium
17:45	<b>Conclusions &amp; key messages</b> Ingo Ball, WIP, Germany
18:00	<b>End of event</b>
	<b>Farewell coffee</b>
19:00	<b>Gala Dinner in Delft (please register)</b>

Figure 7: Programme of the HYPOSO Final Event

### 5.3 Follow up events

There are two more HYPOSO sessions already planned to be organised at the two relevant events – AFRICA 2023 and HYDRO 2023. Outlines and draft programmes of the sessions are already accepted and incorporated to the events programmes by the events' organizer.

#### 5.3.1 AFRICA 2023

The HYPOSO session had been planned since the beginning of the HYPOSO project to be held during AFRICA Conference, which was to take place in Uganda. The event was originally planned in September 2020 and postponed due to the start of the COVID-19 pandemic to 13 - 15 July 2021. After that, due to continuous pandemic restrictions, it was being subsequently postponed to August/September and October 2021, and then to April 2022 and November/December 2022. Finally, the last postponement, caused by emergence of Ebola virus in Uganda, set the date of the event on 10-12 July 2023. In each of the postponed events the HYPOSO session had been included in the event's programme and was to be accompanied by the B2B meeting.

NEW DATES: 10 - 12 July 2023 Lake Victoria, Uganda

**AFRICA 2023**

**10 TO 12 JULY 2023 - UGANDA**

**Session 3: The HYPOSO project: Hydropower solutions for developing and emerging countries**

**Co-chairs: B. Pelikan, Consultant, Austria, and D. Malone, HPAU, Uganda**

The findings of the EU-supported research project HYPOSO will be discussed with respect to two African target countries: Uganda and Cameroon. This will include the results of the analysis of the small hydropower framework conditions, and recommendations on how to facilitate small hydro projects in the two countries. The selected pilot sites in each country and the outcomes of the prefeasibility studies for those sites will be presented. Speakers will demonstrate how the joint efforts triggered by the HYPOSO initiative can create better framework conditions for hydropower investment in Africa and how the European know-how can help foster the transition into more sustainable energy systems in African countries.

- The HYPOSO Project: An opportunity for joint efforts in working for more sustainable hydropower - I. Ball, Wirtschaft und Infrastruktur GmbH & Co Planungs KG, Germany
- Counting the benefits: A quick review of the HYPOSO project; the case for Uganda - D. Malone, Hydropower Association of Uganda
- The framework conditions for small hydropower development and the outcomes of the HYPOSO project: The case for Cameroon - J. Kenfack, Solar HydroWatt, Sarl, Cameroon
- HYPOSO pilot projects in Uganda and Cameroon - B. Pelikan, Consultant, Austria
- General discussion on the outcomes of the HYPOSO initiative

Figure 8: Outline and programme of the HYPOSO Session at AFRICA 2023

The date of AFRICA 2023 set in July 2023 is beyond the time framework of the HYPOSO project but the session on HYPOSO is still planned to be held there as the follow up of the project. The

findings of HYPOSO will be presented and discussed concerning two African target countries - Uganda and Cameroon. This will include the results of the analysis of the small hydropower framework conditions in these two countries as well as recommendations on how to facilitate SHP projects in Uganda and Cameroon. The selected three pilot sites per each country and the outcomes of the prefeasibility studies made for those sites will be presented. The speakers will demonstrate how the joint efforts triggered by the HYPOSO initiative can create better framework conditions for hydropower investment in Africa and how the European know-how can continuously foster the transition into more sustainable energy systems in African countries.

### 5.3.1 HYDRO 2023

Similarly, as in 2020 and 2022, the HYPOSO session is planned to be incorporated in the programme of HYDRO 2023 Conference, which is scheduled to take place on 16-18 October 2023 in Edinburgh, Scotland. The findings and results of the HYPOSO project will be presented and discussed. It is expected that the presentation of the project findings and the conclusions from the debate held during the session will help in continuous collaboration between hydropower industry representatives and stakeholders from the target countries and better employment of the chances of small hydropower in Africa and Latin America.

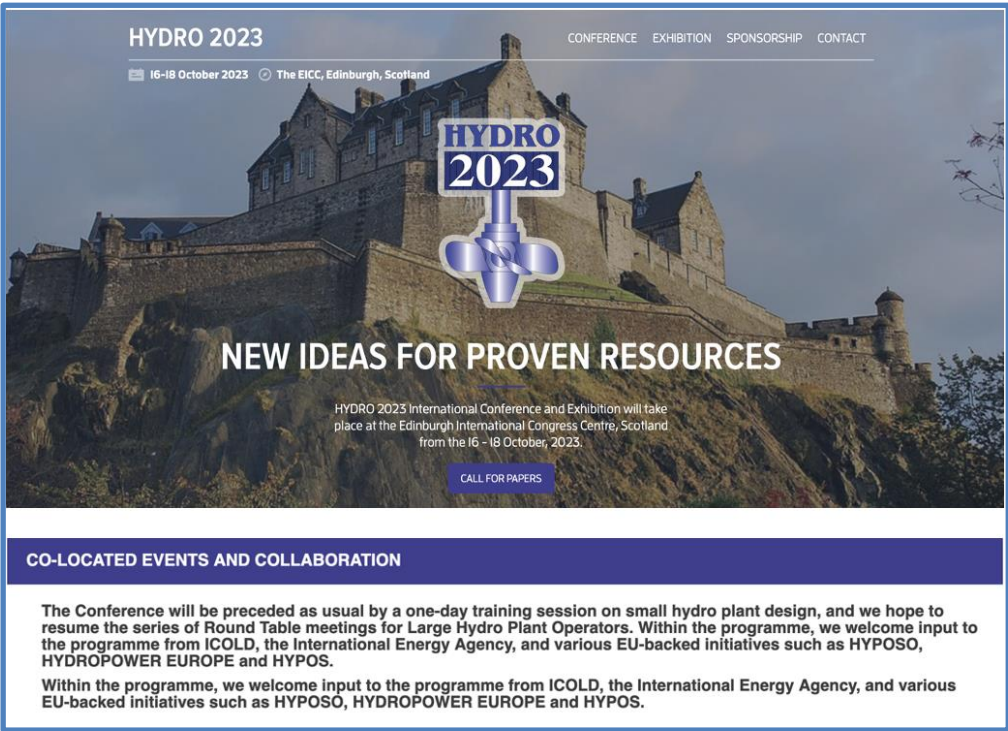


Figure 9: Announcement of HYPOSO project results at HYDRO 2023

## 6 Annex

### 6.1 Events monitoring tool

To have an impression about the tool to monitor partners’ activities distributed to all project partners by TRMEW at the beginning of the project an image of the provided template is shown in Figure 11.

Nr	Event name	Type of event	Date	Location (City /Country/Venue)	Website	Topic(s) of event relevant for HYPOSO	Workshop or session name	Title of presentation	Speaker's name	Speaker's organisation	Attachment (YES/NO)	Leaflets distributed (estimated number)	Audience size	Comments
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														

Figure 10: Events monitoring template

### 6.2 List of proposed national and international events

To have an impression about the list of national and international events distributed to all project partners by TRMEW at the beginning of the project an image of the provided list is shown in Figure 12.

	Event	City/Country	Date	Partner(s) present	Way of promoting the project or initiative	Website	Additional information
1	HYDROFORUM	Polańczyk, Poland	9-11 October 2019	TRMEW/IMP PAN	Presentation on HYPOSO Project + summary in the book of abstracts	<a href="https://www.renexpo-hydro.eu/en/conference/conference-2019/small-hydropower-in-africa-and-latin-america-1/">https://www.renexpo-hydro.eu/en/conference/conference-2019/small-hydropower-in-africa-and-latin-america-1/</a>	
2	HYDRO	Porto, Portugal	14-16 October 2019	SHW, SF, IHE DELF	Sessions on small hydro and capacity building (but not within HYPOSO)	<a href="https://www.hydropower-dams.com/hydro-2019/">https://www.hydropower-dams.com/hydro-2019/</a>	
3	OLAIX IV LAC Energy Week	Lima, Peru	11-14 November 2019	CELAPEH		<a href="http://www.olade.org/">http://www.olade.org/</a>	OLAIX is an intergovernmental organisation established to support the integration, rational utilisation and protection of energy resources in the Latin America region.
4	Small Hydro Latin America, Expo	Medellin, Colombia	27-28 November 2019	CELAPEH		<a href="https://www.arena-international.com/smallhydrolatinamerica">https://www.arena-international.com/smallhydrolatinamerica</a>	
5	REXPO Inter-Hydro	Salzburg, Austria	28-29 November 2019	EREF, IHE DELF, SF	Workshop titled "Small hydropower in Africa and Latin America" introducing the HYPOSO project		Miro - chairman of the session EU hydropower association meeting; Luigi attending, holding a presentation not related to Hyposo.
6	HYDRO FORUM TRMEW	Nowy Adamów, Poland	28-29 November 2019	TRMEW	Presentation on HYPOSO Project	<a href="http://trmew.pl/index.php?id=71&amp;tx_ttnews%5Btt_news%5D=385&amp;chash=65bce22912e4d2e7a59e184f1ff21e">http://trmew.pl/index.php?id=71&amp;tx_ttnews%5Btt_news%5D=385&amp;chash=65bce22912e4d2e7a59e184f1ff21e</a>	
7	FISE - Bi annual International Fair on the Electric Sector	Medellin, Colombia	4-6 December 2019	CELAPEH		<a href="https://www.fise.co/en">https://www.fise.co/en</a>	
8	HYDRO Asia	Kuala Lumpur, Malaysia	30 June - July 2020			<a href="https://www.hydropower-dams.com/asia-2020/">https://www.hydropower-dams.com/asia-2020/</a>	Miro?
9	African Hydropower Forum	Cape Town, South Africa	21-22 April 2020	SHW	Joseph: Communicate on the HYPOSO project and prepare the field for further action	<a href="https://mjdvent.com/event/african-hydropower-forum/">https://mjdvent.com/event/african-hydropower-forum/</a>	Joseph: This event is important for it put together the stakeholders of the continent to discuss about hydropower,
10	8th International symposium on Hydraulic structures	Chile	12-15 May 2020			<a href="https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=8ISHS">https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=8ISHS</a>	
11	9th Latin American Energy Meeting	Cartagena/Colombia	14-15 May 2020	CELAPEH	To be discussed at coming Project meeting in Vilnius	<a href="https://www.fise.co">https://www.fise.co</a>	
12	6th IAHR Europe Congress	Poland	30 June - 2 July 2020			<a href="https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=6THRE">https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=6THRE</a>	
13	30th IAHR Symposium on Hydraulic Machinery and	Switzerland	5-10 July 2020			<a href="https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=30THSHMS">https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=30THSHMS</a>	
14	XXIX Congreso Latinoamericano de Hidráulica	Mexico	5-9 October 2020			<a href="https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=LAD2020">https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=LAD2020</a>	
15	HYDRO	Strasbourg, France, online	26-28 October 2020	many	Joseph: Communicate on the HYPOSO project and share the expected impact in the continent during the relevant sessions	<a href="https://www.hydropower-dams.com/wp-content/uploads/Strasbourg-Hydro-2020.pdf">https://www.hydropower-dams.com/wp-content/uploads/Strasbourg-Hydro-2020.pdf</a>	Joseph: We do have a session on small hydro during each hydro conference in Europe. It is for me important to share some views with the participants, even as key note. Bernhard thinks a session is a bit much but we should think about two or three presentations. For sure he will be there for other reasons.
16	3 <sup>rd</sup> Annual International Congress and Exhibition Hydropower Latin America	Bogota, Columbia	18-19 November 2020			<a href="https://www.latinamericahydrocongress.com/en/">https://www.latinamericahydrocongress.com/en/</a>	
17	Annual Energy Week	Uganda	2020?	SHW	Joseph: Prepare relevant communications from the issues identified in the country, organize a round table to discuss how to address them		Joseph suggests to be present at this event to learn hands on what is going on in the field and better appreciate the contributions to come from us
18	Expo APAMEC	Chile					
19	Bi annual Latin America Energy Week	rotating					
20	HYDRO Africa	Lake Victoria, Uganda	13-15 April 2021	many	Joseph: Prepare several communications during this event, organize a round table to discuss some issues	<a href="https://www.hydropower-dams.com/africa-2021/">https://www.hydropower-dams.com/africa-2021/</a>	Joseph: From the previous events in Addis Ababa in 2013, Marrakech in 2017 and Windhoek in 2019, this event is very relevant for us. Miro suggests we prepare a session there, presenting our results and progress. It could be in form of 1.5 hour session or also half/full-day
21	World Hydropower Congress	Costa Rica	23-24 September 2021			<a href="https://congress.hydropower.org/about-whc/">https://congress.hydropower.org/about-whc/</a>	World Hydropower congress, 2021, is dependent on the place where it will be organized. There also a session could be organized. We should speak with new IHA board. Miro can also take over the RenExpo for next years
22	REXPO Inter-Hydro	Salzburg, Austria	November 2021	IHE Delf			
23	39th IAHR World Congress	Spain	4-9 July 2021			<a href="https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=39THWC">https://www.iahr.org/Portals/0/Event_Display.aspx?EventKey=39THWC</a>	

Figure 11: The list of proposed national and international events

### 6.3 List of national and international events attended by the HYPOSO project experts

The list and characteristics of all national and international events attended by the HYPOSO project experts within the duration of the HYPOSO project is shown in the appendix below.